**Course Meetings:** Thurs. 4:00 – 6:50 p.m., ECH 1205
**Professor:** Marcel O’Gorman, Director, Critical Media Lab
**Office:** Hagey Hall 258, UW Main Campus
**Prof’s phone:** 519.888.4567 x32946
**e-mail:** marcel@uwaterloo.ca
**Course Web Site:** http://criticalmedia.uwaterloo.ca/courses/maker_culture
**CML Web Site:** http://criticalmedia.uwaterloo.ca
**Office Hours:** Wednesdays, 3:00-5:00 and by appointment

**Primary Bibliography:**
Readings (mostly in excerpt form) will be posted on the LEARN site or via the links below. Additional readings may be assigned in class. View online syllabus for updates.


Course Description

The UW Course Calendar describes ENGL 408C as follows: “Students apply a variety of analytic perspectives - design discourse, multimodal discourse, rhetorical theory, social semiotics - to the design and production of a major digital project (or compilation of projects) using professional software and hardware tools.” This term, the course will focus specifically on what has been called “Maker Culture.” This so-called “culture” is a contemporary phenomenon inspired by a spirit of DIY (Do It Yourself) and a hacker aesthetic that can be traced in the history of computer hardware and software design. To begin, we will explore the history of this “culture” by studying the Victorian Arts & Crafts movement and the 18th-century Luddites. Then we will move through modern DIY movements before ending up in digital maker/hacker spaces, perhaps literally. We will pay specific attention to the role of “design” in maker culture, and students will complete a design project that involves making a digital object-to-think-with.

Assessment

Seminar Presentation with Notes (20%)
Minor Design Project with Essay (10% +10%)
Major Design Project with Individual Essay (20% + 20%)
Blog (10%)
Participation (10%)

Seminar Presentation with Notes (20%)

Each student will prepare a presentation based on a weekly reading, covering key points, specialized terms, and items of contention or discussion. Your presentation should be as attentive to stimulating discussion as it is to the theatrics of powerpoint. This is not simply a summary of the reading, although you must give a comprehensive overview of the text; instead, the goal of the presentation is to "translate" the weekly reading so that it is relevant within the context of previous and future course readings and assignments. You should make use of audio/visual materials of your choice to enhance the quality of the presentation. Don't just present the text (and most especially, don't just read notes from a page) -- engage your colleagues in a discussion of the issues.

In preparation for the presentation, each student will write a set of reading notes based on the instructions below. Ideally, you should be taking notes like this for each course reading. Taking notes ensures that the readings have a better chance to be stored in your internal hard drive (hypomnesis), where they participate actively in your individuation. You should leave the course with key concepts that you can employ in writing, design, and thinking for the rest of your life.

My recommended note-taking method, which is also a mnemotechnic, is as follows:

1. Do the reading.
2. As you read, underline or outline passages that you feel are of significance. What is significant? Anything that will help you explain the reading to others, anything that reminds you of other readings, anything that coincides with popular culture and current events.
3. Transcribe the significant passages in a text document, along with bibliographical information and page number.
4. Under the transcribed passage, write a comment about why it is significant.
Notes will be graded primarily on the substance of your comments, but the form of the notes (bibliographical information, proper transcription) will also be taken into account. Post portions of your notes to the blog if you want feedback from your colleagues (and a better blog grade). The presentation grade will be based on the following components (5% each): comprehensiveness (did you cover the most important parts of the article?); relevance (did you relate the reading to other course readings or current events?); notes (based on criteria above).

Minor Group Design Project (10%) with Individual Essay (10%)  
Due October 16

Students will work in groups of 2 to complete a small digital design project that involves soldering together a small piece of hardware and programming it to display images with LED lights. The key component of this project will be hacking the code to transform a “cute” piece of digital jewellery into a critical object-to-think-with. Additional details will be provided in class. Technical support may be provided by the CML’s lab tech, but students are expected to respect the “Y” part of this DIY assignment. Project hardware will be funded at least in part through the CML budget. The project will be accompanied by a short essay (3-4 pages) that explains the meaning of the hack, based on course readings and additional research.

Grading of the hardware project will be based on the functionality, complexity, and creativity of the hardware, code, and interface. Grading of the essay will be based on the student’s ability to demonstrate how the hardware project embodies a specific critical issue. Research materials (at least two books or articles) must be quoted directly. Additional details will be provided in class.

Major Group Design Project (20%) with Individual Essay (20%)  
Due Dates: Proposal Oct 30, First Iteration Nov 20, Exhibition Nov 28, Essay Dec 4

Students will work in groups of 2 to complete a design project that incorporates course readings with digital tools and design strategies discussed in class. The group will propose a project that they have found on a maker/hacker site such as arduino.cc, makezine.com, instructables.com or ladyada.net. After the project is approved, they will complete its construction. The final step will involve hacking the project to transform it into an object-to-think-with that reflects course readings and discussions. Additional details will be provided in class. Technical support will be provided by the CML’s lab tech, but students are expected to respect the “Y” part of this DIY assignment. Project hardware will be funded at least in part through the CML budget. The projects will be showcased in a public event at the end of the term.

In addition to the group work, students will complete INDIVIDUAL essays, for which they will be graded INDIVIDUALLY. The essay will serve as a lucid explanation and theorization of the project, as if written for a general but sophisticated audience (e.g., readers of The New Yorker). In preparation for writing the essay, students should ask themselves the following questions: How was the project created? What are the technical specifications of the project? How was it received by the audience? How does the project reflect and/or embody course readings? The evaluation will be based on the technical precision of the writing, the quality of documentation, and the application of course readings and other research materials. The essay should be 7-8 pages in length, double-spaced, 12pt font, 1-inch margins, and follow the MLA formatting style.
Blog (10%)
Each group of students will keep a blog of their course-related activities both as individuals and as a group. The blog should be used to comment on course readings, post articles and information relevant to the course, and document project development. But it should also serve as a “sketch book” where students sketch out ideas, discuss interesting projects or technologies that are relevant to their work, and comment on the work of other students. The blog is a group activity, but students will be graded INDIVIDUALLY based on the quantity and quality of posts.

Participation (10%)
Students are expected and arrive on time, attend all classes, and actively engage their colleagues in seminar discussions. In addition, students will be expected to complete in-class workshops, which also count toward the participation grade. Finally, students will be graded on their participation in group work, as assessed by their peers. Note that misuse of personal electronic devices in class may result in a lower participation grade.

General UW Course Policies

Academic Integrity:

*Academic Integrity:* In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.

*Discipline:* A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline, [http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm).

*Grievance:* A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4, [http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm).

*Appeals:* A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals, [http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm).

*Academic Integrity website (Arts):* [http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html](http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html)
*Academic Integrity Office (uWaterloo):* [http://uwaterloo.ca/academicintegrity/](http://uwaterloo.ca/academicintegrity/)

Accommodation for Students with Disabilities:

*Note for students with disabilities:* The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.
# COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Reading/Discussion</th>
<th>Presenters</th>
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<tbody>
<tr>
<td>Sept. 11</td>
<td>Intro. to course. In-class readings. Groups formed and blogs started. Play dough circuit design</td>
<td>O’Gorman</td>
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<tr>
<td>Oct. 2</td>
<td>Field Trip to Critical Media Lab Workshop: Space Invaders LED Pendant</td>
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<tr>
<td>Oct. 16</td>
<td>Field Trip to Critical Media Lab Marx, <em>Manifesto of the Communist Party</em> Arduino Pendant Showcase Introduction to Final Project</td>
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<tr>
<td>Oct. 23</td>
<td>Field Trip to Kwartzlab Somerson, <em>The Art of Critical Making</em></td>
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<tr>
<td>Nov. 6</td>
<td>Oroza, “Technological Disobedience” Other readings TBD Workshop: TBD depending on student needs</td>
<td>Guest Lecture by Dr. Nicholas Balaisis</td>
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<td>Nov. 13</td>
<td>Doctorow, <em>Makers</em> Dunne &amp; Raby, <em>Speculative Everything</em> Workshop: TBD depending on student needs</td>
<td>2</td>
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<tr>
<td>Nov. 20</td>
<td>Field Trip to Critical Media Lab Chun, <em>Programmed Visions</em> Present Iteration 1 of Final Project</td>
<td>Guest Lecture by Prof. Aimée Morrison</td>
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<td>Nov. 27</td>
<td>Ingold, <em>Making</em> Hertz, “Interview with Alex Galloway” Studio Time for Project Development</td>
<td>2</td>
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<tr>
<td>Nov. 28</td>
<td>Exhibition and Presentation of Final Projects at Critical Media Lab</td>
<td>Everyone</td>
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